



Subtherapeutic serum infliximab trough levels and complete mucosal healing are associated with sustained clinical remission after infliximab discontinuation in paediatric Crohn's disease patients

12th Congress of ECCO, Barcelona, Spain

February 15th, 2017

Ben Kang, MD

Department of Pediatrics, Samsung Medical Center



Disclosure of Conflicts of Interest:

Conflict of interest : None

Background

- Several studies regarding the clinical course of Crohn's disease (CD) after stopping scheduled infliximab (IFX) treatment in the adult population, such as the STORI trial.
- Lack of data in the paediatric population.
- Aims
 - 1) To investigate outcome of paediatric CD patients who had discontinued IFX under clinical remission by combined immunosuppression with IFX and thiopurines.
 - 2) To reveal risk factors associated with clinical relapse in these patients.

Methods

- Retrospective observational study (Jan. 2009 ~ Jun. 2016)
- Department of Pediatrics, Samsung Medical Center
- Subjects: 63 paediatric luminal CD patients
 - 1) who had discontinued scheduled IFX under sustained corticosteroid-free clinical remission for at least 1 year by combined immunosuppression with IFX and azathioprine,
 - 2) followed for at least 1 year after IFX cessation.
- Relapse free survival rate and the median time to relapse was estimated by Kaplan-Meier survival analysis.
- Demographic, clinical, biochemical, and endoscopic factors at IFX cessation were evaluated for their association with clinical relapse using Cox proportional hazards regression analysis.

Results

Relapse free survival rate

- Median follow-up period: 4.3 years (range: 1-7.5 years)
- Clinical relapse: 60% (38/63)

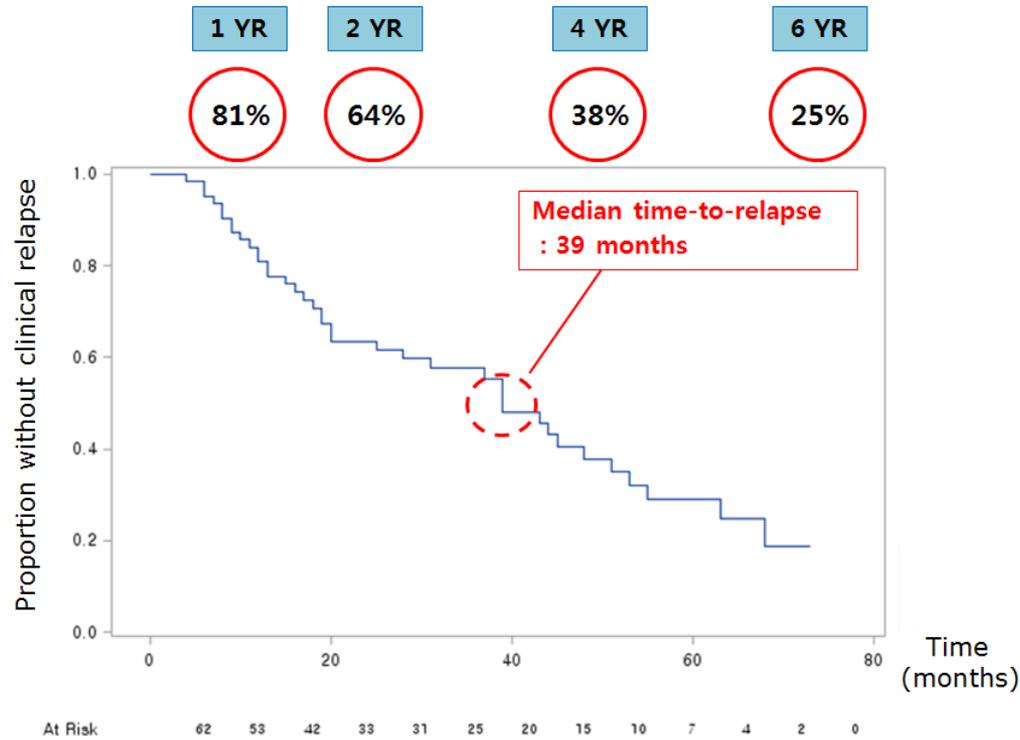
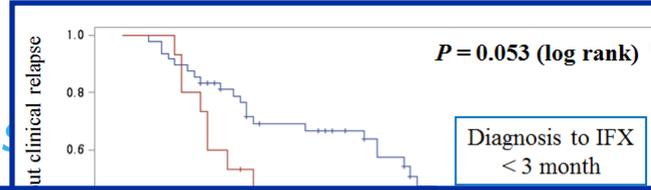


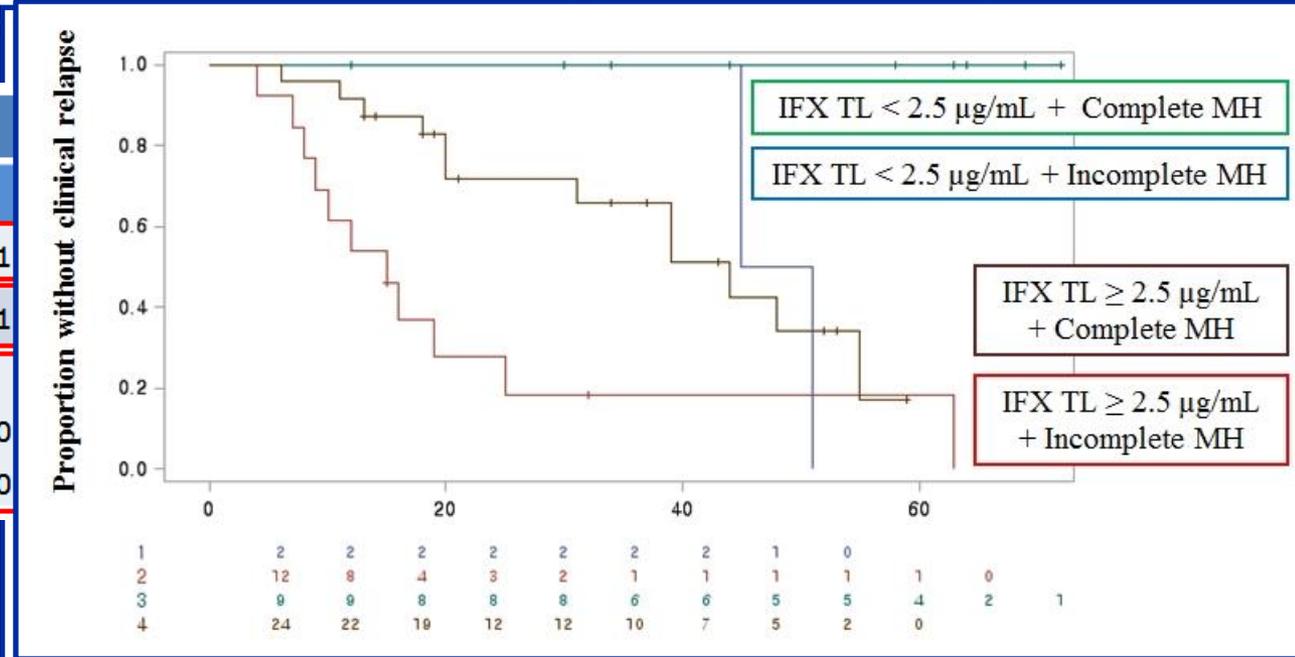
Fig 1. Relapse free survival curve after infliximab cessation.

Results

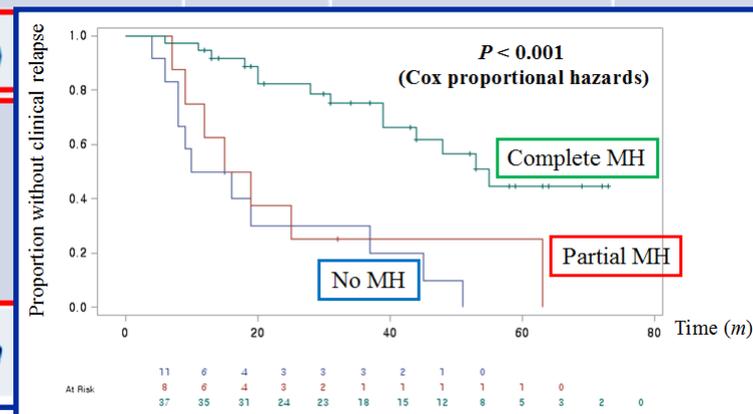
Factors associated with clinical relapse



Disease duration to IFX initiation	1
IFX TL at IFX cessation ($n = 48$)	1
MH at IFX cessation ($n = 57$)	
Partial vs. No	0
Complete vs. No	0
B1 disease behavior (Y vs. N)	
Perianal modifier (Y vs. N)	



	Multivariable analysis		
	HR	95% CI	P
Disease duration to IFX ≥ 3 m	2.145	0.972-6.004	0.058
IFX TL at IFX cessation ≥ 2.5 µg/mL	7.199	1.641-31.571	0.009
Incomplete MH at IFX cessation	3.628	1.608-8.185	0.002
Deep ulcers (Y vs. N)			
	HISTOLOGIC REMISSION (Y vs. N) (n)		



Conclusions

- Approximately 50% of patients with paediatric luminal CD under sustained clinical remission for at least 1 year by combined immunosuppression will experience a relapse within 3.3 years after IFX cessation.
- A subgroup of patients with subtherapeutic serum IFX trough levels and a complete mucosal healing status at IFX cessation may better sustain clinical remission under thiopurines after IFX discontinuation.